

REMARKS

Claims 3, 6, 7, 8, 9, and 10 have been canceled. Thus, Claims 1, 2, 4, and 5 are pending. Applicants have amended sole remaining independent Claim 1. Support for the amendments to Claim 1 can be found, for example, in Figure 8, and paragraphs [0125-0126] of the originally filed patent application. No new matter is introduced by these amendments. Minor amendments to dependant claims 2, 4, and 5 have also been implemented to keep their language internally consistent with amended Claim 1. Again, no new matter is introduced by these amendments.

I. Rejection of Claims 1-10 under §102(b)

The Examiner rejected Claims 1-10 as anticipated by EP 1 130 113 A1 to Schouten, hereafter "Schouten"). Action at pp 2-4. Without acquiescing to the rejection, and solely for the purposes of expediting prosecution, Applicants have amended Claim 1 to include the elements of a "structure-specific nuclease probe, which comprises a signal moiety linked to a quencher moiety or a donor moiety through a short oligonucleotide link element, wherein the labeled structure-specific nuclease probe comprises a flap that does not substantially hybridize to the addressable portion,". Further Applicants have amended to include the element of a "Flap endonuclease (FEN)". These elements are not taught by Schouten. Thus, rejection of Applicants Claim, and Claims 2, 4, and 5 is improper. Reconsideration is respectfully requested.

II. Rejection of Claims 1-10 under §103

The Examiner repeated the rejection of Claims 1-10 as obvious by Barany et al., US Patent 6,027,889, and further in view of Godfrey et al., Journal of Molecular Diagnostics. 2000. Vol. 2, No. 2: pp 84091)). Action at pp 4-8. Without acquiescing to the rejection, and solely for the purposes of expediting prosecution, Applicants have amended Claim 1 to include the elements of a “structure-specific nuclease probe, which comprises a signal moiety linked to a quencher moiety or a donor moiety through a short oligonucleotide link element, wherein the labeled labeled structure-specific nuclease probe comprises a flap that does not substantially hybridize to the addressable portion,”. Further Applicants have amended to include the element of a “Flap endonuclease (FEN)”.

In order to demonstrate a prima facie case of obviousness, three showings must be established by the Patent Office. First, each of the elements must be taught by the references or generally known in the art. Second, there must be a motivation for one of skill in the art to combine each of the elements to form the claimed combination. Finally, one of skill in the art must have some expectation that the combination would be successful.

Applicants respectfully submit that a prima facie case of obviousness has not been established. Specifically, the cited references, alone and in combination, do not teach each element of Applicants' claimed invention. Applicants' claim 1 provides, in relevant part, for a “structure-specific nuclease probe, which comprises a signal moiety linked to a quencher moiety or a donor moiety through a short oligonucleotide link element, wherein the labeled labeled

structure-specific nuclease probe comprises a flap that does not substantially hybridize to the addressable portion,”. Further Applicants have amended to include the element of a “Flap endonuclease (FEN)”.

However, Barany does not teach this element of Applicants’ claimed invention. This deficiency is not made up for by Godfrey. As the Examiner has not demonstrated that all of the elements are taught by Barany or Godfrey, or the combination of Barany and Godfrey, a *prima facie* case of obviousness has not been established by the Examiner.

As Claim 1 is non-obvious, and Claims 2, 4, and 5 all ultimately depend from Claim 1, Claims 2, 4, and 5 are also non-obvious. Applicants respectfully request that the rejection be withdrawn and the claims allowed.

III. Provisional Rejection of Claims 1-10 under §103 for nonstatutory obviousness-type double patenting

Claims 1-10 were provisionally rejected on the grounds of nonstatutory obviousness-type double patenting in light of Claims 1-28 of co-pending application 10/665671 to Andersen. Without acquiescing to this rejection, and for the purposes of expediting prosecution, Applicants will file a terminal disclaimer for remaining Claims 1, 2, 4, and 5 of the present Application if appropriate when claims are allowed.

Further, Claims 1-10 were provisionally rejected on the grounds of nonstatutory obviousness-type double patenting in light of Claims 1-48 of co-pending application 10/693,609 to Friedlander. Applicants note that the claims in Friedlander have recently been amended in an office action, thus likely rendering this rejection moot. Without

acquiescing to this rejection, and for the purposes of expediting prosecution, Applicants will file a terminal disclaimer for Claims 1, 2, 4, and 5 of the present application if appropriate when claims are allowed.

IV. Conclusion

Applicants respectfully request reconsideration of the application and the timely issuance of a Notice of Allowance.

FEE AUTHORIZATION AND PETITION FOR EXTENSION OF TIME

Applicant petitions herewith for a Two-Month Extension of Time. Should any additional fees or extensions of time and/or fee be necessary for timely submission of this paper, such extension of time is hereby requested. The Commissioner is authorized to charge **Deposit Account No. 01-2213 (4798)**. Any deficiency or overpayment should be charged or credited to this deposit account.

Respectfully submitted,

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